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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,009	08/25/2003	Amlan Datta	BALDS2.37AUS4	3329

20995 7590 08/16/2004

KNOBBE MARTENS OLSON & BEAR LLP  
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EXAMINER

MARCANTONI, PAUL D

ART UNIT PAPER NUMBER

1755

DATE MAILED: 08/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/648,009

Applicant(s)

DATTA ET AL.

Examiner

Paul Marcantoni

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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**Obviousness Type Double Patenting:**

Claims 1-15 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-45 of U.S. Patent No. 6,572,697 B2 (Gleeson et al.). Although the conflicting claims are not identical, they are not patentably distinct from each other because both teach a composition that can be used for a building material containing hollow inorganic microspheres.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

**35 USC 102/103**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-15 are rejected under 35 U.S.C. 102(a and b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Garnier et al. '265 B1, Brothers et al. '078 B2 or '961 B2, Drochon et al. '991 B1, Tonyan et al. '487 B1, Bosco et al. '003, Bescup et al. '069, Douden '810, Delmonico '390, Rizer et al. '320, Miller et al. '830, Hinterwaldner '566, Ballard '618, Powers et al. '166, 193, or '758, Wassell et al. '836, Tinsley et al. '344, Beck '713, Rohatgi '256, Peters '752, Pechacek et al. '475, or Gebhardt '985.

All of the above cited references teach compositions that can be used for building materials comprising hollow inorganic spheres such as fly ash cenospheres, hollow glass microspheres, or hollow ceramic microspheres. Note that all read upon the applicants' claimed synthetic microspheres. Note also that ceramic microspheres would contain minimal alkali content so would also meet the limitation for less than 10 wt% alkali metal oxide. Also, glass microspheres would have been expected to also fall within this composition limit for alkali metal oxide since most glasses are soda lime silica glasses or borosilicate glasses and would have been understood by one of ordinary skill in the art to have an amount of alkali oxide below 10%.

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It is also old in the art to add cement fibers for reinforcement to a matrix whether its plastic, cementitious, or ceramic as fibers are notoriously known in the art as matrix reinforcement materials.

It is also the examiner's position that "fly ash cenospheres" read directly upon the synthetic microspheres of the claimed invention. Fly ash cenospheres made in a coal power plant as a by-product are not naturally occurring because it is man made and thus also synthetic. The applicants even *admit* on page 24 of their specification that the fly ash cenospheres made in a coal plant have "substantially the same properties" as the cenospheres derived from fly ash manufactured by their own specific process for making the cenospheres. The cenosphere or microsphere product is thus the same although possibly made by a different product. The applicants are also reminded of the following regarding future arguments regarding "fly ash cenospheres". "Product by Process claims do not patentably distinguish the product of reference even though made by a different process." In re Thorpe, 227 USPQ 964. In other words, even if the cenospheres are made by a different process, the final product is the same and thus not patentably distinct.

**35 USC 112 2<sup>nd</sup> Paragraph:**

Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention.

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Claim 1 is indefinite because applicants do not particularly point out and distinctly claim the specific identity or components in their building material. Claim 1 thus reads merely upon any composition teaching a synthetic microsphere or fly ash cenosphere.

Claim 11 is indefinite because the so labeled "natural" cenospheres are not naturally occurring such as volcanic ash (cenosphere). Fly ash cenosphere from a coal power plant is not "natural" cenosphere but, just like applicants' claimed microsphere, also a "synthetic microsphere". It is synthetic because it is also man-made but only differs in that it is manufactured in a plant for generating power from coal. The examiner objects to the use of the term "natural" cenosphere if applicants mean by this term fly ash cenospheres derived from coal power plants. This is not natural but a man made cenosphere. Cenospheres from a volcanic eruption are natural however but this is not what applicants mean by natural. Applicants are respectfully requested to amend their claim to delete "natural".

Claim 11 thus also fails to further limit claim 1 because the natural cenospheres to which applicants refer to in their specification (cenospheres from coal power plants) is not natural at all but also synthetic or man-made.

Claim 12-15 are indefinite regarding the terms "comprises a pillar", comprises a roofing tile", "comprising siding", and "comprising a wall". The material or composition cannot also contain a structure and what applicants are improperly doing is combining two statutory classes of invention. In other words, they are combining a composition and an article which is not also permissible under 35 USC 101 and thus is also rejected under this statute. Applicants can resolve this issue by amending their claims to, for

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example, wherein the building material is used as a pillar. The other uses can be made in this format as well. Applicants thus would be claiming properly one statutory class of invention and including the intended use in the claim.

**Objection to Specification and Terminology Contrary to Accepted Meaning:**

The specification is also objected to with respect to usage and defining of terminology that is contrary to the accepted meaning of the term in the English language. A preliminary examination of this application reveals that it includes terminology which is so different from that which is generally accepted in the art to which this invention pertains that a proper search of the prior art cannot be made. For example, on page 4 of the specification, the applicants define the term "synthetic hollow microspheres or synthetic microspheres that is not to include harvested cenospheres which are "merely" a by-product of burning coal in coal fired power stations. Yet, cenospheres produced from coal fired power stations are synthetic! They are not naturally occurring such as possibly volcanic ash cenosphere. They are man made and thus synthetic microspheres although man made by a different process allegedly than that claimed by applicants for their invention.

Thus, the applicants are respectfully requested to amend their specification to remove the negative limitation that "synthetic hollow microspheres" or "synthetic microspheres" are defined not to include harvested microspheres from burning coal in a coal power plant. Those cenospheres are just as synthetic as their own. Correction is respectfully requested as it is improper to define a meaning of term (synthetic) that is repugnant to the definition accepted in the art.

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Applicant is required to provide a clarification of these matters or correlation with art-accepted terminology so that a proper comparison with the prior art can be made. Applicant should be careful not to introduce any new matter into the disclosure (i.e., matter which is not supported by the disclosure as originally filed).

A shortened statutory period for reply to this action is set to expire ONE MONTH or THIRTY DAYS, whichever is longer, from the mailing date of this letter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Marcantoni whose telephone number is 571-272-1373. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Bell, can be reached at 571-272-1362. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Paul Marcantoni  
Primary Examiner  
Art Unit 1755



**Notice of References Cited**

Application/Control No.

10/648,009

Applicant(s)/Patent Under  
Reexamination  
DATTA ET AL.

Examiner

Paul Marcantoni

Art Unit

1755

Page 1 of 2

**U.S. PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-6,572,697 B2	06-2003	Gleeson et al.	106/705
	B	US-6,656,265 B1	12-2003	Garnier et al.	106/713
	C	US-6,660,078 B2	12-2003	Brothers et al.	106/705
	D	US-6,648,961 B2	11-2003	Brothers et al.	106/692
	E	US-6,626,991 B1	09-2003	Drochon et al.	106/672
	F	US-6,620,487 B1	09-2003	Tonyan et al.	428/192
	G	US-5,164,003	11-1992	Bosco et al.	106/287.1
	H	US-4,837,069	06-1989	Bescup et al.	428/148
	I	US-4,657,810	04-1987	Douden, David K.	428/313.9
	J	US-4,623,390	11-1986	Delmonico, John A.	106/15.05
	K	US-4,504,320	03-1985	Rizer et al.	106/708
	L	US-4,501,830	02-1985	Miller et al.	523/401
	M	US-4,362,566	12-1982	Hinterwaldner, Rudolf	521/180

**FOREIGN PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

**NON-PATENT DOCUMENTS**

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)

Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

<b>Notice of References Cited</b>	Application/Control No. 10/648,009	Applicant(s)/Patent Under Reexamination DATTA ET AL.	
	Examiner Paul Marcantoni	Art Unit 1755	Page 2 of 2

**U.S. PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-4,332,618	06-1982	Ballard, Norman E.	501/17
	B	US-4,370,166	01-1983	Powers et al.	106/676
	C	US-4,252,193	02-1981	Powers et al.	166/292
	D	US-4,305,758	12-1981	Powers et al.	106/676
	E	US-4,235,836	11-1980	Wassell et al.	264/333
	F	US-4,234,344	11-1980	Tinsley et al.	---/---
	G	US-4,111,713	09-1978	Beck	---/---
	H	US-5,899,256	05-1999	Rohatgi	164/97
	I	US-4,687,752	08-1987	Peters	501/121
	J	US-3,873,475	03-1975	Pechacek et al.	---/---
	K	US-3,782,985	01-1974	Gebhardt	---/---
	L	US-			
	M	US-			

**FOREIGN PATENT DOCUMENTS**

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FORM PTO-1449

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.  
BALDS2.37AUS4APPLICATION NO.  
10/648,009INFORMATION DISCLOSURE STATEMENT  
BY APPLICANT

(USE SEVERAL SHEETS IF NECESSARY)

APPLICANT  
Amlan Datta et al.FILING DATE  
August 25, 2003GROUP  
~~Unknown~~

1700

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
<i>PM</i>	2,676,892	04/27/54	J.D. McLaughlin	—	—	
<i>PM</i>	2,978,340	04/04/61	Franklin Veatch et al.	—	—	
<i>PM</i>	3,365,315	01/23/68	Warren R. Beck et al.	—	—	
<i>PM</i>	3,752,685	08/14/73	Hidemasa Honda et al.	—	—	
<i>PM</i>	2001/0043996	11/22/01	Kenji Yamada et al.	—	—	
<i>PM</i>	2002/0025436	02/28/02	Paul W. Meyer et al.	—	—	

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO

EXAMINER  
INITIAL

## OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)


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EXAMINER

*Paul W. Meyer*

DATE CONSIDERED

8/16/04

\*EXAMINER: INITIAL IF CITATION CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED, INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

FORM PTO-1449

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.  
BALDS2.37AUS4APPLICATION NO.  
10/648,009INFORMATION DISCLOSURE STATEMENT  
BY APPLICANTAPPLICANT  
Amlan Datta et al.FILING DATE  
August 25, 2003GROUP  
1700

(USE SEVERAL SHEETS IF NECESSARY)

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
<i>jm</i>	1	4,111,713	09/1978	Warren R. Beck	—	—	
<i>jm</i>	2	4,307,142	12/1981	Blitstein et al.	—	—	
<i>jm</i>	3	4,624,798	11/1986	Gindrup et al.	—	—	
<i>jm</i>	4	4,867,931	09/1989	Joe K. Cochran, Jr.	—	—	
<i>jm</i>	5	5,176,732	01/1993	Block et al.	—	—	
<i>jm</i>	6	5,458,973	10/1995	David G. Jeffs	—	—	
<i>jm</i>	7	2002/0025436	02/2002	Paul W. Meyer	—	—	

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
<i>jm</i>	8	0 359 362 B1	04/1995	EP	—	—		
<i>jm</i>	9	0 801 037 B1	08/2000	EP	—	—		
<i>jm</i>	10	1 156 021 A1	11/2001	EP	—	—		
<i>jm</i>	11	1 160 212 A1	12/2001	EP	—	—		
<i>jm</i>	12	1040859	10/1978	Canada	—	—		
<i>jm</i>	13	07024299 A2	01/1995	Japan	—	—		
<i>jm</i>	14	07292846 A2	11/1995	Japan	—	—		
<i>jm</i>	15	07315869 A2	12/1995	Japan	—	—		
<i>jm</i>	16	08169779 A2	07/1996	Japan	—	—		
<i>jm</i>	17	09020526 A	01/1997	Japan	—	—		
<i>jm</i>	18	9124327 A2	05/1997	Japan	—	—		
<i>jm</i>	19	3213521 A1	06/1983	Germany	—	—		

EXAMINER INITIAL	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)	
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	21	

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EXAMINER	<i>Paul Meyer</i>	DATE CONSIDERED	8/10/04
*EXAMINER: INITIAL IF CITATION CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED. INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.			